

Amendment to the Claims

1. (Currently Amended) A vehicle seatback audio controller, comprising:

an entertainment audio source;

an entertainment interface coupled to the first input configured to receive an entertainment audio signal from an entertainment audio source;

a telematics audio source;

a telematics interface coupled to the telematics audio source, the telematics interface configured a second input configured to receive a telematics audio signal from a telematics audio source; and

a level detector electrically coupled to the first input;

a seatback interface coupled to the entertainment interface, the telematics interface, and a signal processor electrically coupled to the first input, the second input, the level detector, and a seatback speaker, the seatback speaker coupled to a seat of a vehicle;

where the signal processor seatback interface provides the telematics audio signal to the seatback speaker when the telematics audio source is active, and provides the entertainment audio signal to the seatback speaker when the telematics audio source is inactive;

where a vehicle speaker receives an amplified signal of the entertainment audio signal while the telematics audio source is either inactive or active;

where telematics audio from the seatback speaker is directed to a first listener position in the seat, entertainment audio from the vehicle speaker is directed to the first listener position and a second listener position located elsewhere in the vehicle, and the telematics audio from the seatback speaker and the entertainment audio from the vehicle speaker are produced in a common listener space within the vehicle;

where the level detector determines an average gain signal as a function of the entertainment audio signal; and

where the signal processor adjusts a level of the telematics audio signal to the seatback speaker as a function of the average gain signal.

2. (Currently Amended) The vehicle seatback audio controller of claim 1, where the ~~signal processor vehicle seatback audio controller~~ determines whether the telematics audio source is active ~~through a function from~~ the telematics audio signal.

3. (Currently Amended) The vehicle seatback audio controller of claim 1, further comprising a third input configured control interface coupled to the telematics audio source to receive a control signal from the telematics audio source, where the ~~signal processor vehicle seatback audio controller~~ determines whether the telematics audio source is active ~~through from~~ the control signal.

4. (Canceled)

5. (Currently Amended) The vehicle seatback audio controller of claim 1, where the telematics audio source is comprises a radar warning system.

6. (Currently Amended) The vehicle seatback audio controller of claim 1, where the telematics audio source is comprises a navigation system.

7. (Currently Amended) The vehicle seatback audio controller of claim 1, where the telematics audio source is comprises a mobile telephone.

8. (Original) The vehicle seatback audio controller of claim 1, where the entertainment audio source provides a digital audio signal.

9. (Currently Amended) The vehicle seatback audio controller of claim 1, where the entertainment audio source comprises a compact disc player-provides an analog audio signal.

Claims 10-22. (Canceled)

23. (Currently Amended) A method of controlling seatback audio, comprising:
receiving an entertainment audio signal from an entertainment audio source;

receiving a telematics audio signal from a telematics audio source;

providing the telematics audio signal to a seatback speaker when the telematics audio source is active, where the seatback speaker is coupled to a seat; and

providing the entertainment audio signal to the seatback speaker when the telematics audio source is inactive;

providing the entertainment audio signal to a vehicle speaker regardless of whether the telematics audio source is active; and

adjusting a level of the telematics audio signal to the seatback speaker as a function of the entertainment audio signal, where telematics audio produced by the seatback speaker and entertainment audio produced by the vehicle speaker are produced in a common listener space, and the common listener space includes a first listener position located in the seat and a second listener position located elsewhere in the vehicle.

24. (Canceled)

25. (Currently Amended) The method of claim 23, comprising where adjusting the level of the telematics audio signal includes:

receiving a vibration signal from an accelerometer positioned in a vehicle;

determining an average gain signal as a function of the entertainment audio signal and the vibration signal; and

adjusting ~~a~~the level of the telematics audio signal to the seatback speaker as a function of the average gain signal.

26. (Currently Amended) The method of claim 23, ~~comprising where~~ adjusting the level of the telematics audio signal includes:

receiving a vibration signal from a microphone positioned in a vehicle, where the microphone receives sounds produced by the vehicle speaker;

determining an average-gain signal as a function of the entertainment audio and the vibration signal; and

adjusting ~~a~~the level of the telematics audio signal to the seatback speaker as a function of the gain signal.

27. (Currently Amended) A vehicle seatback audio controller, comprising:

means for receiving an entertainment audio signal;

means for receiving a telematics audio signal;

~~means for transmitting a~~ signal processor configured to transmit the telematics audio signal to a seatback speaker when the telematics audio signal is active and to transmit; and

~~means for transmitting~~ the entertainment audio signal to the seatback speaker when the telematics audio signal is inactive, where the seatback speaker is coupled to a seat of a vehicle, where the signal processor is also configured to adjust an amplitude of

the telematics audio signal transmitted to the seatback speaker, where adjustment of the amplitude is based on the entertainment audio signal, where a vehicle speaker in the vehicle is configured to receive an amplified entertainment audio signal independent of whether the telematics audio signal is active, and where telematics audio produced by the seatback speaker and entertainment audio produced by the vehicle speaker are both produced in a common listener space within the vehicle.

28. (Currently Amended) The vehicle seatback audio controller of claim 27, comprising;

a microphone positioned in the vehicle, where the microphone is configured to generate a noise signal from audio received by the microphone, and the audio includes the entertainment audio produced by the vehicle speaker; and

a level detector coupled to the microphone, where the level detector is configured to receive receiving the noise signal, where the level detector determines an average gain signal as a function of the noise signal, and the signal processor is configured to increase the amplitude means for transmitting the telematics audio signal adjusts a level of the telematics audio signal to the seatback speaker as a function of the average gain signal.

29. (Currently Amended) The vehicle seatback audio controller of claim 27, comprising;

an accelerometer coupled to the vehicle, where the accelerometer is configured to generate generating-a vibration signal; and

a level detector coupled to the accelerometer, where the level detector is configured to receive ~~receiving~~-the vibration signal and the entertainment audio signal, where the level detector is configured to determine ~~determines~~ an average gain signal as a function of the vibration signal and the entertainment audio signal, and the signal processor is configured to adjust the amplitude ~~means for transmitting the telematics audio signal-adjusts a level of the telematics audio signal~~ to the seatback speaker as a function of the average gain signal.

30. (Currently Amended) The vehicle seatback audio controller of claim 27, comprising a level detector coupled to the signal processor ~~means for receiving an entertainment audio signal-receiving the entertainment audio signal~~, where the level detector is configured to determine ~~determines~~ an average gain signal as a function of the entertainment audio signal, and the signal processor is configured to adjust the amplitude ~~means for transmitting the telematics audio signal-adjusts a level of the telematics audio signal~~ transmitted to the seatback speaker as a function of the average gain signal.

31. (New) The vehicle seatback audio controller of Claim 1, where the level detector rectifies the entertainment audio signal to generate a rectified signal and integrates the rectified signal to determine the average gain signal.

32. (New) A vehicle seatback audio controller, comprising:

a filter;

a level detector electrically coupled to the filter;

where the filter is configured to receive an entertainment audio signal from an entertainment audio source, and the filter is also configured to receive a telematics audio signal from a telematics audio source;

where the filter is configured to provide an output signal to a seatback speaker, and the seatback speaker is coupled to a seat of a vehicle;

where the filter is configured to provide the telematics audio signal as the output signal in response to the telematics audio source determined to be active, and is further configured to provide the entertainment audio signal as the output signal in response to the telematics audio source determined to be inactive;

where a vehicle speaker in the vehicle is configured to receive an amplified signal of the entertainment audio signal independently of whether the telematics audio source is active;

where entertainment audio produced by the vehicle speaker and telematics audio produced by the seatback speaker are produced in a common listener space within the vehicle;

where the level detector is configured to generate an average gain signal from the entertainment audio signal; and

where the filter amplifies the telematics audio signal provided to the output signal based on the average gain signal.

33. (New) The vehicle seatback audio controller of Claim 32, where the filter comprises a digital signal processor.

34. (New) The vehicle seatback audio controller of Claim 32, where the level detector is configured to generate a rectified signal from the entertainment audio signal and is also configured to integrate the rectified signal to generate the average gain signal.

35. (New) The vehicle seatback audio controller of Claim 32, where the telematics audio source comprises a mobile telephone.

36. (New) The vehicle seatback audio controller of Claim 32, where the filter is configured to determine whether the telematics audio source is active from the telematics audio signal.

37. (New) The vehicle seatback audio controller of Claim 32, where amplification of the telematics audio signal increases the intelligibility of the telematics audio produced by the seatback speaker and received at a listener position in the seat without substantially disturbing the entertainment audio produced by the vehicle speaker and received at another listener position located elsewhere in the vehicle.

38. (New) The method of claim 23, where adjusting the level of the telematics audio signal includes:

- generating a rectified signal from the entertainment audio signal;
- integrating the rectified signal to generate an average gain signal; and
- adjusting the level of the telematics audio signal to the seatback speaker as a function of the average gain signal.

39. (New) The method of claim 23, further comprising determining whether the telematics audio source is active based on whether the telematics audio signal received is above a threshold signal level.